NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color. Color drawings are not acceptable until petition is granted. Fig(s) Pencil and non black ink not permitted. Fig(s) Pencil and non black ink not permitted. Fig(s) Photographs. 37 CFR 1.84(b) 1 full-tone set is required. Fig(s) Photographs may not be mounted. 37 CFR 1.84(c) Poor quality (half-tone). Fig(s) Photographs may not be mounted. 37 CFR 1.84(c) Poor quality (half-tone). Fig(s) Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) Fig(s) SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 10 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (B 12 x 11 inches) All drawing sheets not an acceptable size. Sheet(s) Drawings sheets not an acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11 Margins not acceptable. Fig(s) Margins not acceptable. Fig(s) Top (T) Right (R) Bottom (B) VIEWS. 37 CFR 1.84(h) Place of the figure as one entity. Fig(s) Views not labeled separately or properly. Fig(s) Enlarged view not labeled separetely or properly. Fig(s)	8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i) Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) 9. SCALE. 37 CFR 1.84(k) Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) 10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFB 1.84(i) Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality). Fig(s) Solid black areas pale. Fig(s) Solid black shading not permitted. Fig(s) Solid black shading not permitted. Fig(s) Shade lines, pale, rough and blurred. Fig(s) 12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p) Numbers and reference characters not plain and legible. Fig(s) Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(1) Fig(s) English alphabet not used. 37 CFR 1.84(p)(2) Figs Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig(s) Lead lines cross each other. Fig(s) Lead lines cross each other. Fig(s) Lead lines cross each other. Fig(s) Lead lines missing. Fig(s) Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Sheet(s) 15. NUMBERING OF VIEWS. 37 CFR 1.84(u) Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s)
ECTIONAL VIEWS. 37 CFR 1.84 (h)(3) Hatching not indicated for sectional portions of an object. Fig(s) Sectional designation should be noted with Arabic or Roman numbers. Fig(s)	16. CORRECTIONS. 37 CFR 1.S4(w) Corrections not made from prior PTO-948 dated 17. DESIGN DRAWINGS. 37 CFR 1.152 Surface shading shown not appropriate. Fig(s) Solid black shading not used for color contrast. Fig(s)

DATE 10/31/2003 TELEPHONE NO. (703) 3082215 ATTACHMENT TO PAPER NO. 55

PTO Conv

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

A) 1-102	
The drawings filed (insert date) 0 5 , are	Modified forms. 37 CFR 1.84(h)(5)
A. not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.	
B objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as	Modified forms of construction must be shown in separate views.
	Fig(s)
indicated below. The Examiner will require submission of new, corrected	
drawings when necessary. Corrected drawings must be submitted	8. ARRANGEMENT OF VIEWS, 37 CFR 1.84(i)
according to the instructions on the back of this Notice.	View placed upon another view or within outline of another.
	Fig(s)
 DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: 	Words do not appear in a horizontal, left-to-right fashion when
Black ink. Color.	
Not black solid lines. Fig(s)	page is either upright or turned so that the top becomes the right
Color drawings are not acceptable until petition is granted.	side, except for graphs. Fig(s)
color diamings are not acceptable dinitipedation to granted.	
2. PHOTOGRAPHS, 37 CFR 1,84(b)	9. SCALE. 37 CFR 1.84(k)
Photographs are not acceptable until petition is granted.	Scale not large enough to show mechanism without crowding
Photographs are not acceptable until petition is granted.	when drawing is reduced in size to two-thirds in reproduction.
3. GRAPHIC FORMS. 37 CFR 1.84 (d)	Fig(s)
Chemical or mathematical formula not labeled as separate figure.	Indication such as "actual size" or "scale 1/2" not permitted.
Fig(s)	Fig(s)
Group of waveforms not presented as a single figure, using	Elements of same view not in proportion to each other.
common vertical axis with time extending along horizontal axis.	Fig(s)
Fig(s)	
	MADACTED OF LINES AND ADEDS & LETTERS 27 OFD LOAD
Individuals waveform not identified with a separate letter	III. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(1)
designation adjacent to the vertical axis. Fig(s)	Lines, numbers & letters not uniformly thick and well defined,
	clean, durable, and black (except for color drawings).
4. TYPE OF PAPER. 37 CFR 1.84(e)	\ Fig(s) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Paper not flexible, strong, white, smooth, nonshiny, and durable.	
Sheet(s)	1. SHADING. 37 CFR 1.84(m)
Erasures, alterations, overwritings, interlineations, cracks, creases, COO	
and folds not allowed. Sheet(s) [3]	Shading used for other than shape of spherical, cylindrical, and
and tolds not anowed. Sincer(s) 1 300 church	conical elements of an object, or for flat parts.
A OWER OF RUNER OF COM LOVE A LIVE	【 \
5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable paper sizes:	Solid black shading areas not permitted. Fig(s)
21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)	1
21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)	12 NAPOREN LETTERS & REPERFIGE CHARLEST AND ADDRESS.
21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)	12 NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR
21.0 cm. by 29.7 cm. (DIN size A4)	(\\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \
All drawing sheets not the same size. Sheet(s)	Numbers and reference characters not plain and legible. 37 CFR
Drawing sheet not an acceptable size. Sheet(s)	1.84(p)(1) Fig(s) $-(a)(a)$
Drawing sheet not an acceptable size. Sheek(s)	Numbers and reference characters used in conjuction with
C MARCHIO 22 CERT COM A CONTRACTOR CONTRACTOR	brackets, inverted commas, or enclosed within outlines. 37 CFR
MARGINS. 37 CFR 1.84(g): Acceptable margins:	1.84(p)(1) Fig(s)
Paper size	Numbers and reference characters not oriented in same direction as
21.6 cm, X 35.6 cm, 21.6 cm, X 33.1 cm, 21 cm, X 27.9 cm, 21 cm, X 29.7 cm,	
(8 1/2 X 14 inches) (8 1/2 X 13 inches) (8 1/2 X 11 inches) (DIN Size A4)	the view. 37 CFR 1.84(p)(1) Fig(s)
T 5.1 cm. (2") 2.5 cm. (1") 2.5 cm. (1") 2.5cm.	English alphabet not used. 37 CFR 1.84(p)(2)
L .64 cm. (1/4") .64 cm. (1/4") .64 cm. (1/4") 2.5 cm.	// Fig(s)
R .64 cm. (1/4") .64 cm. (1/4") .64 cm. (1/4") 1.5 cm.	Numbers, letters, and reference characters do not measure at least
B .64 cm. (1/4") .64 cm. (1/4") .64 cm. (1/4") 1.0 cm.	32 cm. (1/8 inch) in height. 37 CFR(p)(3)
Margins do not conform to chart above.	Fig(s) - (00
Shocet(s)	
Pop (T) Left (L) (Right (R) (Bottom (B)	12 15 15 15 15 15 15 15 15 15 15 15 15 15
	13. LEAD LINES, 37 CFR 1.84(q)
7. VIEWS. 37 CFR 1.84(h)	Lead lines cross each other. Fig(s)
REMINDER: Specification may require revision to correspond to	Lead lines missing. Fig(s)
drawing changes.	Lead lines not as short as possible. Fig(s)
All views not grouped together. Fig(s)	
Views connected by projection lines. Fig(s)	14. ANYMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(1)
Views contain center lines. Fig(s)	
Partial views. 37 CFR 1.84(h)(2)	Number appears in top margin. Fig(s)
Separate sheets not linked edge to edge.	Number not larger than reference characters.
	Fig(s)
Fig(s)	Sheets not numbered consecutively, and in Arabic numerals,
View and enlarged view not labeled separately.	beginning with number 1. Sheet(s)
Fig(s)	
Long view relationship between different parts not clear and	IS NITWEED OF VIEWS 37 CED 1 \$4(a)
unambiguous. 37 CFR 1.84(h)(2)(ii)	15. NUMBER OF VIEWS. 37 CFR 1.84(u)
	 Views not numbered consecutively, and in Arabic numerals,
unambiguous. 37 CFR 1.84(h)(2)(ii)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Sectional views. 37 CFR 1.84(h)(3)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig.
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig. Fig(s) Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Sectional views. 37 CFR 1.84(h)(3) Hatching not indicated for sectional portions of an object. Fig(s)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig. Fig(s) Single view contains a view number and the abbreviation Fig.
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Sectional views. 37 CFR 1.84(h)(3) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig. Fig(s) Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Sectional views. 37 CFR 1.84(h)(3) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig. Fig(s) Single view contains a view number and the abbreviation Fig.
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Sectional views. 37 CFR 1.84(h)(3) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal lines. Fig(s)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s). View numbers not preceded by the abbreviation Fig. Fig(s). Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters. Fig(s).
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) — Hatching not indicated for sectional portions of an object. Fig(s) — Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) — Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) — Cross section not drawn same as view with parts in cross section	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s). View numbers not preceded by the abbreviation Fig. Fig(s). Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters. Fig(s). 16. CORRECTIONS. 37 CFR 1.84(w)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) — Hatching not indicated for sectional portions of an object. Fig(s) — Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) — Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) — Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes.	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s). View numbers not preceded by the abbreviation Fig. Fig(s). Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters. Fig(s).
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) Fig(s)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s). View numbers not preceded by the abbreviation Fig. Fig(s). Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters. Fig(s). 16. CORRECTIONS. 37 CFR 1.84(w)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) — Hatching not indicated for sectional portions of an object. Fig(s) — Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) — Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) — Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes.	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) Fig(s)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig Single view contains a view number and the abbreviation Fig Numbers not larger than reference characters Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) Hatching of juxtaposed different elements not angled in a different way. Fig(s)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters Fig(s) 16. CORRECTIONS. 37 CFR 1.84(w) Corrections not durable and permanent. Fig(s) 17. DESIGN DRAWING. 37 CFR 1.152 Surface shading shown not appropriate. Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) Hatching of juxtaposed different elements not angled in a different way. Fig(s) Alternate position. 37 CFR 1.84(h)(4)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig. Fig(s) Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters. Fig(s) 10. CORRECTIONS. 37 CFR 1.84(w) Corrections not durable and permanent. Fig(s) 17. DESIGN DRAWING. 37 CFR 1.152 Surface shading shown not appropriate. Fig(s) Solid black shading not used for color contrast.
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) Hatching of juxtaposed different elements not angled in a different way. Fig(s) Alternate position. 37 CFR 1.84(h)(4) A separate view required for a moved position	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters Fig(s) 16. CORRECTIONS. 37 CFR 1.84(w) Corrections not durable and permanent. Fig(s) 17. DESIGN DRAWING. 37 CFR 1.152 Surface shading shown not appropriate. Fig(s)
unambiguous. 37 CFR 1.84(h)(2)(ii) Fig(s) Hatching not indicated for sectional portions of an object. Fig(s) Hatching of regularly spaced oblique parallel lines not spaced sufficiently. Fig(s) Hatching not at substantial angle to surrounding axes or principal lines. Fig(s) Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) Hatching of juxtaposed different elements not angled in a different way. Fig(s) Alternate position. 37 CFR 1.84(h)(4)	Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) View numbers not preceded by the abbreviation Fig. Single view contains a view number and the abbreviation Fig. Numbers not larger than reference characters. Fig(s)

Attachment for PTO-948 (Rev. 03/01, or earlier) 6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein Identifying indicia, if provided, should include the title of the invention inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the Notice of Allowability. Extensions of time may NOT be obtained under the provisions of 37 CFR 1 136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Drattsperson, MUST be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings MUST be approved by the examiner before the application will be allowed. No changes will be permitted to be made other than correction of informalities, unless the examiner has approved the proposed changes

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication See 37 CFR 1.85(a)

Failure to take corrective action within the set period will result in ABANDONMENT of the application.